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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (\_), the underscore (\_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (\_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at <a href="https://www.onsemi.com">www.onsemi.com</a>. Please email any questions regarding the system integration to <a href="https://www.onsemi.com">Fairchild\_questions@onsemi.com</a>.

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### Absolute Maximum Ratings<sup>(1)</sup>

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^{\circ}$ C unless otherwise noted.

| Symbol             | Parameter                           |                      | Value       | Units |
|--------------------|-------------------------------------|----------------------|-------------|-------|
| V <sub>RRM</sub>   | Maximum Repetitive Reverse Voltage  | 70                   | V           |       |
| I <sub>F(AV)</sub> | Average Rectified Forward Current   |                      | 200         | mA    |
| I <sub>FSM</sub>   | Non repetitive Reak Forward Current | Pulse Width = 1.0 s  | 1.0         | A     |
|                    | Non-repetitive Feak Forward Current | Pulse Width = 1.0 µs | 4.0         | A     |
| T <sub>STG</sub>   | Storage Temperature Range           |                      | -65 to +200 | °C    |
| TJ                 | Operating Junction Temperature      | 175                  | °C          |       |

Note:

1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired. Measured on 8.3ms single half-sine wave or equivalent square wave. Duty cycle = 4 pulses per minute maximum.

## **Thermal Characteristics**

| Symbol                | Parameter                               | Value | Units |
|-----------------------|---|-------|-------|
| P <sub>D</sub>        | Power Dissipation                       | 500   | mW    |
| $R_{	extsf{	heta}JA}$ | Thermal Resistance, Junction to Ambient | 350   | °C    |

## **Electrical Characteristics**

Values are at  $T_A = 25^{\circ}C$  unless otherwise noted.

| Symbol         | Parameter         | Conditions  | Min. | Max. | Units |
|----------------|-------------------|---|------|------|-------|
| V <sub>R</sub> | Breakdown Voltage | I <sub>R</sub> = 100 μA                                     | 85   |      | V     |
| V <sub>F</sub> | Forward Voltage   | I <sub>F</sub> = 10 mA                                      |      | 1.0  | V     |
|                |                   | I <sub>F</sub> = 100 mA                                     |      | 1.0  | V     |
| I <sub>R</sub> | Reverse Leakage   | V <sub>R</sub> = 60 V                                       |      | 25   | nA    |
|                |                   | $V_{R} = 60 \text{ V}, \text{ T}_{A} = 150^{\circ}\text{C}$ |      | 5.0  | μA    |
| CT             | Total Capacitance | V <sub>R</sub> = 0, f = 1.0 MHz                             |      | 6.0  | pF    |



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